

CLAIMS

We claim:

1. A method of mounting a flexible material onto a surface, said method comprising the steps of:

5 providing a first and a second elongated web of said flexible material;
disposing said first and second webs on the surface in a longitudinally aligned relationship with one another, wherein a first edge of said first web abuts a first edge of said second web to form a longitudinal engagement point;
securing at least one clamping strip onto the longitudinal engagement point, each
10 of said clamping strips adapted to secure the longitudinal engagement point in a stable position; and
securing at least one batten cap onto said each of said clamping strips, each of said batten caps adapted to secure each of said clamping strips.

15 2. The method of Claim 1, said flexible material comprising a photovoltaic material and said surface comprising a roof deck.

3. The method of Claim 1, said securing at least one clamping onto the longitudinal engagement point comprising securing one clamping strip onto the longitudinal
20 engagement point.

4. The method of Claim 2, further comprising disposing a membrane material onto said roof deck prior to said disposing of first and second webs.

25 5. The method of Claim 2, further comprising the step of applying a sheet of membrane material upon the roof, over which are disposed said first and second webs of photovoltaic material.

6. The method of Claim 2, further comprising the step of establishing electrical
30 communication to each of said webs of photovoltaic roofing material.

7. The method of Claim 6, further comprising the step of establishing electrical communication in a region of a soffit of the roof.

8. The method of Claim 6, further comprising the step of establishing electrical
5 connection in a region of a ridge of the roof.

9. The method of Claim 6, further comprising the step of establishing electrical communication proximate a transverse extending edge of each of said webs of photovoltaic material.

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10. The method of Claim 1, said longitudinal engagement point forming a substantially triangular shape having said surface as a base, said first edge of said first web as a first side and said first edge of said second web as a second side.

11. The method of Claim 10, said batten cap having a first side and a second side, said batten cap first side having an inwardly curled end and said second batten cap side having an inwardly curled end.

12. The method of Claim 11 said first side having a first arced shape and said second
20 side having a second arced shape.

13. The method of Claim 10, further comprising shaping said inwardly curled end of said batten cap first side to maintain contact with said first side of said substantially triangular shape and shaping said inwardly curled end of said batten cap second side to
25 maintain contact with said second side of said substantially triangular shape.

14. The method of Claim 12, further comprising shaping said inwardly curled end of said batten cap first side to maintain contact with said first side of said substantially triangular shape and shaping said inwardly curled end of said batten cap second side to
30 maintain contact with said second side of said substantially triangular shape.

15. The method of Claim 10, further comprising securing said first side of said substantially triangular shape to said surface and securing said second side of said substantially triangular shape to said surface.

5 16. The method of Claim 15, said securing said first side of said substantially triangular shape comprising a first securing means attaching said first side to said surface and said securing said second side of said substantially triangular shape comprising a second securing means attaching said second side to said surface.

10 17. A system for securing photovoltaic material onto a surface, comprising:
a first flexible web of photovoltaic material and a second web of photovoltaic material, said first and second webs set onto the surface in a longitudinally aligned relationship with one another, wherein a first edge of said first web abuts a first edge of said second web to form a longitudinal engagement point
15 at least one clamping strip clamped onto the longitudinal engagement point, each of said clamping strips adapted to secure the longitudinal engagement point;
and
at least one batten cap clamped onto said each of said clamping strips, each of said batten caps adapted to secure each of said clamping strips.

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18. The system of Claim 17, each of said webs having a generally central photovoltaic area encapsulated within a polymeric material, said polymeric material having both side and end extending edges beyond said photovoltaic area and a pair of contact terminals extending from a selected end of said flexible web and establishing
25 electrical communication with the photovoltaic area.

19. The system of Claim 17, said longitudinal engagement point forming a substantially triangular shape having said surface as a base, said first edge of said first web as a first side and said first edge of said second web as a second side.

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20. The system of Claim 17, each of said clamping strips fabricated from a material selected from the group consisting of aluminum, iron, steel, stainless steel, nylons or polystyrene.

5 21. The system of Claim 17, each of said batten caps fabricated from a material selected from the group consisting of aluminum, iron, steel, stainless steel, nylons or polystyrene.

10 22. The system of Claim 18, each of said webs maintaining a uniform thickness throughout cross sections having said photovoltaic area, said uniform thickness tapering to a thinner thickness at said edges and sides.

15 23. The system of Claim 19, said batten cap having a first side and a second side, said batten cap first side having an inwardly curled end and said second batten cap side having an inwardly curled end.

24. The system of Claim 23, said first side having a first arced shape and said second side having a second arced shape.

20 25. The system of Claim 24, said inwardly curled end of said batten cap first side having a shape to maintain contact with said first side of said substantially triangular shape and said inwardly curled end of said batten cap second side having a shape to maintain contact with said second side of said substantially triangular shape.

25 22. The system of Claim 19, further comprising means for securing said first side of said substantially triangular shape to said surface and means for securing said second side of said substantially triangular shape to said surface.

30 23. The system of Claim 22, said means for securing selected from the group consisting of screws, nails and adhesive.

24. The system of Claim 17, further comprising a ridge roller, said ridge roller rotatably securing a spool of photovoltaic material and facilitating the drawing and sectioning of discreet lengths of photovoltaic material, at least one of said first flexible web of photovoltaic material and said second flexible web of photovoltaic material
5 supplied by said spool.
25. The system of Claim 24, said ridge roller comprising:
a first set of legs adapted to run along a first rail;
a second set of legs adapted to run along a second rail, said second rail
10 approximately parallel to said first rail; and
a cradle adapted to rotatably support said spool.
26. The system of Claim 24, said ridge roller comprising:
a first sliding panel having a first set of wheels;
15 a second sliding panel having a second set of wheels;
at least one first locking means, said first locking means adapted to lock said first sliding panel into a desired position; and
at least one second locking means, said second locking means adapted to lock said second sliding panel into a desired position.
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27. The system of Claim 26, said first set of wheels adapted to run along a first rail and a second set of wheels adapted to run along a second rail, said second rail approximately parallel to said first rail.
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